

CLAIMS

I claim:

✓ 1. A family or series of related keyboards comprising at least three differing keyboards, each having at least an alphanumeric section containing a plurality of keys, said alphanumeric sections having characteristics in common so as to have at least consecutive compatibility, said compatibility being structural, or operational, or both.

2. The family or series of claim 1 wherein at least one member is a standardized keyboard generally conforming to ISO/IEC 9995, and at least one member is a keyboard that may, does, or is intended to become a new standard.

3. The family or series of claim 1 having a common key arrangement for at least some of said keys in said alphanumeric section in each member keyboard.

4. The family or series of claim 3 wherein said common key arrangement is an arrangement having a certain measure of horizontal offset between keys in adjacent rows for a group of at least four keys in at least three successive rows, said certain measure being equal to one half of the horizontal center spacing of a pair of said four keys in one of said three successive rows.

5. A member keyboard of the family or series of claim 4.

✓ 6. A multi-mode, electronic keyboard suitable for two-handed typing and having an alphanumeric section, said alphanumeric section having a plurality of character keys, and having at least one shift key, and having alternative option means for allowing two or more alternative modes of physically performing the same keyboard operation, said alternative modes being associated with different motor skills producing an identical output from said alphanumeric section.

7. The keyboard of claim 6, said means being redundancy means for redundant methods of operation including a first method in which certain characters are typed on their own keys, and a second method in which said certain characters are typed by shift-selecting them on other keys.

8. The keyboard of claim 6, said means being redundancy means for redundant methods of operation including a first method in which a particular key is operated by an index finger, and a second method in which said particular key is operated by a thumb.

9. The keyboard of claim 6, said means being redundancy means for redundant methods of operation including a first method in which at least one particular shift character is selected and typed using one digit on each hand, and a second method in which said particular shift character is selected and typed using two digits on one hand.

10. The keyboard of claim 6, said means being reversing means for using alternative configurations of columns of keys selected by reversing all or part of said keyboard.

11. The keyboard of claim 6, said means being key arrangement means for using alternative configurations of columns of keys selected on fixed keys.

Sub A3 ✓ 12. A electronic keyboard conforming to Parts I and II of ISO/IEC 9995, and having an alphanumeric section with a plurality of keys arranged in rows and columns, and having at least a left hand group of five of said columns and a right hand group of five of said columns, characterized in that said left hand group and said right hand group are laterally symmetrical to one another.

13. The keyboard of claim 12, further characterized in that within said alphanumeric section all other finger keys provided for the left hand are in columns immediately adjacent to said left hand group, and all other finger keys provided for the right hand are in columns immediately adjacent to said right hand group.

14. The keyboard of claim 12 having a home row, and further characterized in that with respect to said home row all of the columns in said left hand group and said right hand group are not perpendicular to said home row but lean towards the opposite group.

15. The keyboard of claim 14 further characterized in that, within said left hand group and within said right hand group, adjacent columns are more widely spaced at the top than at the bottom.

Sub A4 ✓ 16. An electronic keyboard having a plurality of keys arranged in rows and columns, and having cursor arrows arranged in a symmetrical cross on three of said rows within an alphanumeric section, characterized in that a left arrow key is immediately adjacent to a right arrow key.

17. The keyboard of claim 16 wherein said symmetrical cross determines the approximate angle of those of said columns that are immediately adjacent to said symmetrical cross and which may be assigned to the index fingers of an operator.

18. The keyboard of claim 16 wherein a home row has fourteen keys, a row immediately below said home row has fifteen keys, a row immediately above said home row has fifteen keys, and a row second above said home row has fourteen keys.

Sub A5 ✓ 19. An electronic keyboard, with an alphanumeric section having a plurality of keys arranged in rows and columns, and having a home row, and having graphic characters, invisible characters, and at least one shift function assigned to at least some of said keys, and having a home group of five columns of finger keys for each hand, characterized in that all graphic characters within said alphanumeric section are assigned to keys within said home groups.

20. The keyboard of claim 19, further characterized in that all graphic character keys are within one key of said home row.

Sub A6 ✓ 21. The keyboard of claim 19, also having a thumb home position for each thumb, and further characterized in that all of said shift functions and invisible characters are within one key of one of said home groups, or within one key of one of said thumb home positions.

22. The keyboard of claim 19, having a graphic character capacity of at least 90 characters.

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- ✓ 23. An electronic keyboard having a plurality of character keys and at least two shift keys, characterized by having at least one of said shift keys located for convenient operation by an index finger.
24. The keyboard of claim 23 further characterized by having at least one of said shift keys located for convenient operation by a thumb.
25. The keyboard of claim 24 further characterized by having at least one of said shift keys arranged for convenient operation by either a thumb or an index finger, according to user preference.
- ✓ 26. An electronic keyboard for two-handed operation, having an alphanumeric section with a plurality of character keys and at least two shift keys, characterized by having at least one shift key for each hand arranged to facilitate one-handed shift-character operations.
27. The keyboard of claim 26 further characterized by having three shift keys for each hand arranged to facilitate one-handed shift-character operations.
28. The keyboard of claim 27 further characterized by having said three shift keys for each hand arranged for convenient operation by either a thumb or an index finger.
- ✓ 29. An electronic keyboard, with at least one shift key having the combined functions of a shift key and a shift-lock key, said functions being differentiated electronically in response to distinctive key operating procedures.
30. The keyboard of claim 29 wherein said operating procedures generally rely on a similar procedure in full measure and in half measure to respectively lock and release the shift, for example, double-clicking to engage an electronic lock, and a single touch to release said electronic lock.
- ✓ 31. An electronic keyboard with an alphanumeric section having keys arranged in rows including at least a home row, a row above said home row, and a row below said home row, with letters assigned to at least some of said keys, and having at least two shift functions, wherein one of said shift functions selects numeral characters on said home row.
32. The keyboard of claim 31 wherein the horizontal key center-spacing in individual rows is arranged as if all rows are of the same length, and as if said home row has fourteen keys, as if said row above has thirteen keys, and as if said row below has fifteen keys, irrespective of the actual number of keys in each row.
33. The keyboard of claim 31 further characterized by having three independent shift functions, and four groups of characters predominantly relating to the following natural character classifications: small letters; capital letters; numerals; and symbols.
34. The keyboard of claim 33 further characterized in that each shift group has a capacity of thirty characters.

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35. A computer keyboard suitable for two-handed typing and general-purpose applications, with an alphanumeric section having:

- a plurality of keys arranged in less than six rows;
- at least one shift function and a basic graphic character capacity of at least 96 characters;
- space, tab, and return functions, otherwise known as invisible characters;
- an enter function, alone or in combination with another function;
- a command function;
- left-right symmetry; and
- at least one pair of shift keys located closer to the center than to the ends of said rows.

36. The keyboard of claim 35 wherein said alphanumeric section has four rows of keys.

37. The keyboard of claim 36 having keys so arranged as to permit the choice of using one hand or two for the shift-selection and typing of a character.

38. The keyboard of claim 35 having editing functions and command functions integrated into said alphanumeric section so that editing and command sections are unnecessary.

39. The keyboard of claim 38 having three separate shift functions and having four groups of characters predominantly relating to small letters, capital letters, numerals, and symbols.

40. The keyboard of claim 35 having central arrow keys arranged in a symmetrical cross on three rows of keys, with a left arrow immediately adjacent to a right arrow.

41. The keyboard of claim 40 having at least one shift key arranged for convenient operation by an index finger or a thumb according to user preference.

42. The keyboard of claim 41 wherein said alphanumeric section has four rows of keys, has editing and command functions integrated into said alphanumeric section, has keys so arranged as to permit the choice of using one hand or two for the shift-selection and typing of a character, has three shift functions, and has four natural groups of characters predominantly relating to small letters, capital letters, numerals, and symbols.

43. Any keyboard generally in accordance with the spirit and principles of this invention.